

## 7 Marketing

### 7.1 The sweetpotato enterprise

The enterprise of growing sweetpotato for sale can include the selling of fresh sweet potato, partially processed sweetpotato (i.e. dried chips), processed sweetpotato (i.e. sweetpotato flour), or vines for planting materials. Regardless of which enterprise the farmer chooses, each can be profitable if income is more than expenses for the enterprise. The key to all profitable farming-as-a-business enterprises is to develop your farm plan and pay especially close attention to marketing.



Income	Expenditures
<ul style="list-style-type: none"> <li>• From harvest of storage roots = total weight of roots (kg) multiplied by the price per kg or opportunity value; or the price offered for the standing crop for each class of quality</li> <li>• From harvest of vines for vegetables or planting materials, or the opportunity value if used on the farm</li> <li>• From production and sale of processed sweetpotato products</li> </ul>	<ul style="list-style-type: none"> <li>• Rent for land</li> <li>• Planting materials</li> <li>• Organic manure</li> <li>• Agrochemicals (fertilisers, pesticides, etc.)</li> <li>• Implements &amp; Tools</li> <li>• Labour:               <ul style="list-style-type: none"> <li>– hired</li> <li>– opportunity cost of family labour</li> </ul> </li> <li>• Transportation when purchasing inputs</li> <li>• Costs of harvesting (transaction costs, marketing, labour, transportation, tools, etc.)</li> <li>• Costs of processing (transportation, sorting/grading, storage, equipment, labour, ingredients, packaging, promoting and marketing processed products etc.)</li> <li>• Other costs</li> </ul>

The amount of income will depend on the quantity and quality of the harvest and the price at the time of sale. A higher quality sweetpotato will bring a higher price per kg but will also add a little more expense in the way of packaging, processing and transportation. However, the net income will almost always be more for the higher quality. Sorting into qualities is often a new concept for many subsistence farmers. Usually only half or less of the harvest would be top quality sweetpotato that could be sold for a higher price.

The total expense depends on the quantity of inputs and services used and their price per unit. For income and expense farmers tend to consider only those activities where money is directly involved. They hardly ever consider the opportunity value of products or services, such as the family labour, or the vines used for feed on the farm. This means, for instance, that they do not pay themselves a salary. However, it is important to realise what the value of these opportunities are in order to make the right farm management decisions, especially when alternative opportunities are available, for instance off-farm employment or the marketing for sweetpotato planting materials.

In the Sweetpotato IPPM FFS, the participants can make an economic analysis of the IPPM FFS field using the Seasonal Cultivation Record form, and can be encouraged to do the same for their own fields throughout the season.

## 7.2 The marketing process

Often people, even business people, speak of marketing as selling. However, marketing is much more than selling and, in fact, it is one of the most important set of activities in any business. We say set of activities because marketing involves determining what your customer wants, developing that product, delivering that product to a place where the customer wants to purchase it, determining a price for the product that is profitable and attractive to the customer, and then informing the customer about your product.

That may sound complicated but there is an easier way to understand and remember the important parts of marketing called the *Marketing Mix*. We sometimes call them the 4 “P’s” of marketing because in English they all start with the letter “P”. To do a complete job of marketing one has to attend to all 4 parts of marketing.

The first “P” is **Product** which means determining the crop or commodity you are selling. That would include activities such as:

- Deciding which crops to grow and sell
- Determining what is selling in the larger market
- Determining if added value is necessary
- Determining what competitive groups are selling
- Determining the quality needed to compete
- Determining amount of commodity that can be delivered at a specific time (scheduling)
- Developing or improving packaging

The second “P” is **Price** which means determining a price that is attractive and makes a profit. Pricing includes these activities:

- Setting or adjusting your price
- Understanding margin of profit over costs
- Understanding competitors’ prices
- Special pricing for quick sales
- Special pricing to open up markets
- Determining whether customer purchases are based on price, quality, or convenience
- Understanding seasonal supply & demand changes

The next “P” is for **Place** but it really means distribution or determining a place to sell your product and where the customer wants to buy your product. Distribution decisions involve these activities:

- Which markets respond to your offer best (local village market, town market, large city market, international market)
- Who can help distribute your produce
- Determining whether to use middlemen (brokers, exchanges, etc.)
- How to get your produce or commodity to the market/ buyers (bicycle, pickup truck, lorry, train)
- Type and cost of transportation
- Methods of storage and costs
- Use of co-operatives and associations to bulk sales

The last “P” is for **Promotion** or communication about your product. Promotion for some businesses includes advertising but for farmers it is usually just communicating information about your product or commodity. Promotion includes these activities:

- Providing information to potential buyers about your product
- Paid Advertising about your product (usually not economical for small farmers)
- Signs about offers (pricing, quality, availability)
- Training of sales people
- Samples of product
- Packaging of product (bags, labels, tags)
- Creating a brand or positive image about your product

Rarely can the four parts of marketing be handled individually. In most cases, each part of the Marketing Mix is considered in relationship to the other parts. For example, one has to decide upon the product to grow by determining if it will sell for a price that is profitable. In addition, deciding upon where you will distribute your crop (place) will determine what prices are being paid for the commodity. Developing a brand and special packaging can transform the product into something better than raw sweetpotato (adding value). So, you can see that all of these marketing decisions have to be made with regard to the impact it has upon the other parts of the Marketing Mix.

### **7.3 The marketing environment**

This Marketing Mix or the 4 “P’s” of Marketing operate in an environment of the 3 “C’s”. Those three “C’s” are the Customer, the Competition and the Controls or government regulations.

Knowing your **customer** means knowing the answers to these questions:

- Who is buying my commodity?
- What do they want? (fresh sweetpotato, dried chips, flour)
- What are they doing with the commodity or how are they using it?
- What services or extras are important? (drying, packaging)
- Who else are they buying from?
- What are they paying?

Knowing your **competition** means knowing the answers to these questions:

- Who is selling the same things I’m selling?
- What are they selling?
- Who are they selling to?
- What are their prices?
- What services or extras are they offering?
- Is there enough market for all of us?

Knowing the **controls** or government regulations means answering these questions:

- What products am I allowed to grow and sell?
- What are the government standards for my product? (quality, packaging standards)
- What government trade policies may impact my crop? (fair trade policies, tariffs)
- What government programmes may help my marketing? (price supports, govt. loans)
- What government agencies can I call on for assistance? (research institutes, trade organisations)

Knowledge of your customer, your competition and knowledge of government regulations build a solid environment with which you apply the 4 “P’s”. Not knowing the answers to one of the key questions can mean you may make the wrong decisions on product, price, place/ distribution or promotion/ communication.

### **7.4 Understanding the market (Supply & Demand)**

Understanding the market means understanding something about the supply and demand of sweetpotato. The farmer is the supplier of sweetpotato while the ultimate customer who eats or uses the sweetpotato product creates the demand. In most agricultural marketing there are many other participants in this supply and demand chain such as brokers, exchanges, processors, and packagers. Information about supply and demand is usually expressed in prices and quantities.

Using marketing information, whether provided by the government or cooperatives or collected on your own can help you understand the current market for sweetpotato. The prevailing market price often influences the farmers’ decision whether or not to plant sweetpotato at a certain time. A high price encourages farmers to plant (increase supply), while a low price (low demand) normally discourages them. However, before being too influenced by the price prevailing at that particular moment, we should try to understand why the price is high or low.

Market principles often follow a supply and demand mechanism, meaning that prices will go down when the supply is high at low demand, and vice versa. When the price is low, leading to fewer farmers planting sweetpotato at that moment, 4-5 months later at harvest time the supply will have considerably decreased until it does not meet the demand anymore. At that moment, prices may go up again. In this situation, it is very likely that farmers who plant when the price is low, will catch a higher price and, thus, earn a higher profit than those who plant when the prices are peaking indicating over-supply.

By using market information about historical price patterns (what months have high prices and what months have low prices) farmers can sometimes “push” a planting season a week or two to reach the best prices. This has to be done in the context of rain and weather patterns of the area or the use of pumps and a reliable water supply.

Farmers who sell the standing crop to a trader are often not aware of the exact market conditions, which put them in a weak bargaining position. Where possible, farmers should join efforts to inform each other about prevailing prices at various markets in the area, so that they do not easily become a victim of power games played by the traders. This would also help them to anticipate large fluctuations in the market price. Access to market information can help farmers make informed decisions about when, what and whether to sell. If the market price of fresh roots is low and seems set to remain that way for a while, farmers might decide to process the roots into dried chips or flour and then either sell them for a better profit or keep them to use either for household food or to sell when the market price of dried sweetpotato products is higher.

FFS participants can rely on farmer organisations like cooperatives or they can collect their own marketing information. The sources of this information are many and varied. The chart below will act as a starting point for collecting this vital information.

<b>Type of Information</b>	<b>Sources of Information</b>
Buyers, Conditions, Preferences	-Other farmers through interaction -Traders through interaction -Ministry of Agriculture Extension Officers -Government Agencies -Agricultural Commodity Exchanges
Prices (Current, Future, Long-term), Demand and Supply	-Other farmers -Ministry of Agriculture Extension Officers -Government Agencies -Traders -Agricultural Commodity Exchanges -News Media (Newspapers, Radio, TV) -Personal Farm Records
Supplies & Services (Seed, fertilizer, transportation)	-Other farmers -Ministry of Agriculture Extension Officers -Traders -Agricultural Commodity Exchanges -News Media (News & Advertising)
Alternative Crops, Alternative Timing	-Other farmers -Agricultural Research Institutions -Colleges, Universities -Agricultural Commodity Exchanges -News Media -Ministry of Agriculture Extension Officers
Suitable Storage for Crops	-Ministry of Agriculture Extension Officers -Agricultural Research Institutions -Colleges, Universities -Other farmers (farm level) -Agricultural Commodity Exchanges (bulk storage) -Traders (bulk storage)

## 7.5 Marketing costs

Marketing of agricultural crops involves the transfer of produce from farmer to consumer. All these activities involve costs. These would be additional to the production costs of land preparation, planting materials, planting and weeding labour, harvesting labour and other production inputs.

*Types of marketing costs:*

1. *Produce preparation:* this includes cleaning, sorting and grading and packaging
2. *Handling costs:* involves loading and offloading
3. *Transport costs:* any kind of transportation be it by the farmer himself, animal drawn carts, bicycles, trucks, lorry, etc. The costs will vary depending on the distance from markets i.e. the longer the distance the higher the cost, fuel prices, quality of road (directly affects the quality of the produce)
4. *Product losses:* although nothing may be thrown away, produce loses weight while in storage and transit. Higher losses are recorded for more perishable produce like fresh sweetpotato roots and vegetables than for more durable crops such as maize or sorghum grain. Losses are highest during the glut of produce. Calculating marketing costs as a result of product losses is quite complex. For instance there may be no quantity losses but large quality losses which can reduce prices. It should be remembered that unsold produce incurs costs during storage, transport etc. and becomes a normal business risk.
5. *Storage costs:* the storage location, the amount of commodity and the duration the product being stored.
6. *Processing costs:* any type of processing like slicing, crushing, drying, milling, cooking, packaging etc. The processing costs vary according to the efficiency, the processing facility (i.e. operational costs)
7. *Capital costs:* money that is used to fund farming and marketing operations.
8. Fees, commissions and unofficial payments

*Calculating costs:* consider a sweetpotato farmer who waits for the traders by the road side.

- She carries sweetpotato in a basket or sack selling to the traders at 5,000/= per 100 kg bag or 500/= per basket or basin. (Ugandan shillings)
- The traders will then repackage the sweetpotato in gunny bags. Traders then take the sweetpotato to a wholesale market where retailers buy at 20,000/= per bag.
- The retailers sell to their consumers in plastic bags of 5 kg.
- Assume considerable losses of up to 10% for the wholesale traders, so they sell only 90 kg. If the retailers lose another 10% of what they purchase, then they will be selling only 81 kg per bag of what the wholesale traders bought from the farmer. If the retail price per bag is 300/= per kg then;

	<b>Per kg purchased from farmer</b>
Purchase from farmers (1 kg x 50/=)	50
Gunny bag (600/100 kg bag)	6
Labour to package, load, unload (1000/100 kg)	10
Transport to wholesale market (5000/100 kg)	50
Costs en route such as road toll (500/100 kg)	5
Market fees (500/100 kg)	5
Commissions to agents etc (500/100 kg)	5
<b>Total Costs</b>	<b>131/=</b>
Quantity sold by wholesaler (0.9 kg x 200/=)	180
<b>Total wholesale trader's gross profit</b>	<b>49/=</b>
Retailer's buying price (0.9 kg x 200)	180
Market fees (500/100 kg)	5
Packaging (50/ 5 kg)	10
Porter's fee (200/100 kg)	2
Wheelbarrow service (500/100 kg)	5
<b>Total costs for retailer</b>	<b>202/=</b>
Revenue from sale of 0.81 kg (i.e. 0.9 kg x 0.9) at a weighted average selling price of 300/= per kg	243/=
<b>Retailer's gross profit</b>	<b>41/=</b>

## 7.6 Marketing margins

A marketing margin is the percentage of the final weighted average selling price taken by each stage of the marketing chain. The margin must cover the costs involved in transferring produce from one stage to the next and provides a reasonable return to those doing the marketing.

The price paid by the eventual consumer is made up of the amount of money paid to the farmer for their produce plus all the costs involved in getting it to the consumer in the form in which they purchase it and a reasonable return to those doing the marketing and processing for carrying out their function.

Margins are often used in the analysis of the efficiency of marketing systems, BUT the presentation of a trader's share of the final selling price in percentage terms can give a misleading impression unless you know the costs involved.

### *Calculating market margins*

Following on the example above where the buying price from the farmer is 5,000 per 100 kg bag and the weighted average wholesale price is 20,000 per 100 kg bag and the weighted average retail price is 30,000 per 100 kg bag

Share to producer is $(5000/30000)$	= 0.17 or 17%
Wholesale margin is $(20000 - 5000)/30000$	= 0.50 or 50%
Retail margin is $(30000 - 20000)/30000$	= 0.30 or 30%
<b>Total margin</b>	<b>= 0.80 or 80%</b>

Because margins are presented in percentage they appear to be high yet the costs may be high resulting in very small net profits for the traders. Without an understanding of those costs and how they are made up, it is impossible to know whether margins are reasonable or not.

The gross profit of the wholesaler and retailer has of course to cover all costs which cannot be calculated on a per kg basis. These occur over the year and can only be apportioned with great difficulty to individual commodities.

## 7.7 Examples of cost: benefit calculations for different activities of sweetpotato IPPM FFS

Abuket FFS records for sweetpotato root production and sale using different planting methods, for the 2003/2004 season in Soroti, Uganda (Ugandan Shillings).

	Farmers practice (2/3 vines placed together/ small heap)			Triangulation (3 vines placed in a triangle/ large heap)			Ridges		
	Qty/ Area	Unit cost/ Price	Total	Qty/ Area	Unit cost/ Price	Total	Qty/ Area	Unit cost/ Price	Total
Field rental	1 acre	10,000	10,000	1 acre	10,000	10,000	1 acre	10,000	10,000
Field clearing	once	20,000	20,000	once	20,000	20,000	once	20,000	20,000
1 <sup>st</sup> ploughing	once	20,000	20,000	once	20,000	20,000	once	20,000	20,000
2 <sup>nd</sup> ploughing	once	20,000	20,000	once	20,000	20,000	once	20,000	20,000
Heaping/ ridging	6,000 heaps	7	42,000	4,000 heaps	10	40,000	4,000 ridges	Oxen 15,000 Manual 1,500	15,000 60,000
Planting	1 acre	8,000	8,000	1 acre	12,000	12,000	1 acre	4,000	4,000
1 <sup>st</sup> weeding	1 acre	30,000	30,000	1 acre	30,000	30,000	1 acre	30,000	30,000
2 <sup>nd</sup> weeding	1 acre	20,000	20,000	1 acre	20,000	20,000	1 acre	20,000	20,000
Harvesting	10 bags	1,000	10,000	40 bags	1,000	40,000	40 bags	1,000	40,000
Packing/ sorting	10 bags	500	5,000	40 bags	500	20,000	40 bags	500	20,000
Transport to collection point	10 bags	1,000	10,000	40 bags	1,000	40,000	40 bags	40,000	40,000
Loading	10 bags	500	5,000	40 bags	500	20,000	40 bags	500	20,000
Market fees	10 bags	200	2,000	40 bags	200	8,000	40 bags	200	8,000
<b>Total costs</b>			202,000			300,000		Oxen 267,000 Manual 312,000	
<b>Yield</b>	10 bags			40 bags			40 bags		
<b>Field price/ bag</b>		10,000			10,000			10,000	
<b>Gross field benefits</b>			100,000			400,000			400,000
<b>Net benefits</b>			<b>-102,000</b>			<b>100,000</b>		<b>Oxen 133,000 Manual 88,000</b>	

Exchange rate 1US\$ = Ug. Sh 1,700

Abuket FFS also sold vines of two orange fleshed sweetpotato varieties, which were in high demand as they had only recently been introduced to Soroti.

Additional income from sale of orange fleshed sweetpotato vines by Abuket FFS, Soroti, Uganda during the 2003/2004 season (Ugandan Shillings).

	Ejumula variety			Kakamega variety		
	Qty/ Area	Unit cost/ Price	Total	Qty/ Area	Unit cost/ Price	Total
<b>Vine yield from 2 cutting times</b>	2 * 80 bags/ acre			2 * 100 bags/ acre		
<b>Field price/ bag</b>		5000			5000	
<b>Gross field benefits</b>			800,000			1,000,000
<b>Production costs</b>	Many are already covered under root production in above table					
<b>Additional production costs</b>						
<b>Bags</b>	160	500	80,000	200	500	100,000
<b>Cutting &amp; bagging of vines</b>	160	500	80,000	200	500	100,000
<b>Transport</b>	160	1,000	160,000	200	1,000	200,000
<b>Total additional costs</b>			320,000			400,000
<b>Net additional benefits</b>	1 acre		<b>480,000</b>	1 acre		<b>600,000</b>

**Kakamega FFS Network (Kenya) Example  
Improved Sweetpotato Varieties with Selling of Vines**

(Kenyan Shillings)					Traditional varieties	Improved varieties	Selling vines
	Time	People	Units Per Acre	Unit Price	Ksh	Ksh	Ksh
<b>What I Need to Farm 1 Acre of Sweetpotato (inputs)</b>							
Cuttings					0		
Cuttings SPK 004			6	300		1800	
Tools (Jembe)			1	150	150	150	
Tools (Panga)			1	100	100	100	
Tools (Slicer)			1	100	100	100	
Tools (Rake)			1	100	100	100	
<b>Subtotal Inputs</b>					<b>450</b>	<b>2250</b>	<b>0</b>
<b>Money Required for Producing 1 Acre of Sweetpotato (Labour)</b>							
Ploughing	2	5	10	70	700	700	
Harrowing	2	5	10	70	700	700	
Ridging	4	5	20	70	1400	1400	
Planting	2	5	10	70	700	700	
Weeding 1	4	5	20	70	1400	1400	
Weeding 2	3	5	15	70	1050	1050	
Harvesting Trad	1	5	5	70	350		
Harvesting Improved	1	10	10	70		700	
<b>Subtotal Labour</b>					<b>6300</b>	<b>6650</b>	<b>0</b>
<b>Money Required for Preparing Sweetpotato to Sell</b>							
Bags (trad)			30	30	900		
Bags (imp)			60	30		1800	
Washing, Grading & Packing (trad)	1	5	5	70	350		
Washing, Grading & Packing (imp)	2	5	10	70		700	
Cutting, Bagging Labour			4	70			280
Additional Bags			40	30			1200
<b>Subtotal Post Harvest Costs</b>					<b>1250</b>	<b>2500</b>	<b>1480</b>
<b>Total Cost of Production</b>					<b>8000</b>	<b>11400</b>	<b>1480</b>
<b>Yield</b>							
Yield Traditional			30	250	7500		
Yield Improved (SPK 004) 1st Quality			30	1100		33000	
Yield Improved (SPK 004) 2nd Quality			30	250		7500	
Yield Vines (2 cuttings)			40	300			12000
<b>Sellable Yield/Gross Income</b>					<b>7500</b>	<b>40500</b>	<b>12000</b>
<b>Other Marketing Costs</b>							
KACE Commission (2%)						660	
KK FFS Network Service Fee (10%)						3300	
Estimated Transportation (200/-bag)						6000	
Total Marketing Costs						9960	
<b>Net Profit</b>					<b>-500</b>	<b>19140</b>	<b>10520</b>
<b>Total Net Profit for Fresh Sweetpotato &amp; Selling Vines</b>							<b>29660</b>

Graduates of Abuket FFS went on to form the Abuket Sweetpotato Processors Association, and successfully produced dried orange fleshed sweetpotato chips and sold them to Kasawo millers. The following table is their record of the cost: benefit of this activity.

*Abuket Sweetpotato Processors Associations records for dried orange fleshed sweetpotato chip production and sale using the variety Ejumula, for the 2003/2004 season in Soroti, Uganda (Ugandan Shillings).*

	Quantity	Time (minutes)	Numbers of persons	Pay rate	Amount (Ug. Sh)
<b>Purchase of roots</b>	350 kgs			74	25,900
<b>Sorting and trimming (Roots)</b>	350 kgs	110	2	250	500
<b>Washing and draining</b>	350 kgs	110	2	250	500
<b>Oil (Motorised Chipping Machine)</b>	0.43 litres	26	-	2000/litre	860
<b>Drying</b>	100 kgs	240	1	500	500
<b>Sorting and conditioning</b>	100 kgs	30	2	250	500
<b>Empty bags</b>	2	-	-	500	1,000
<b>Bagging and sealing</b>	2 bags * 50 kgs	10	2	100	200
<b>Loading tax fee</b>	2 bags * 50 kgs			200	400
<b>Loading service</b>	2 bags * 50 kgs	4	2	200	400
<b>Transport to mills</b>	2 bags * 50 kgs	240	-	5,000	5,000
<b>Off-loading service</b>	2 bags * 50 kgs	4	2	200	400
<b>Weighing service</b>	2 bags * 50 kgs	4	2	200	400
<b>Total Variable costs</b>					36,560
<b>Gross Benefit</b>	2 bags * 50 kgs			500	50,000
<b>Net Benefits</b>	2 bags * 50 kgs				13,440

Several millers have now shown interest in purchasing dried orange fleshed sweetpotato chips for use in their products. Although the price paid by the miller in the above example was 500 Ug. Sh./ kg of dried chips, other miller have subsequently offered 1300 Ug. Sh./ kg. Promoting the consumption of the composite flours produced from these high quality dried orange fleshed sweetpotato chips will help develop this currently small but exciting market opportunity for sweetpotato producers and processors.